Applicant: Jeffrey H. Hoel Attorney's Docket No.: 07844-255002 / P229 C1

Serial No.: Unassigned

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims:**

## 1.-32. (Cancelled)

33. (New) A method of compressing a two-dimensional image, the two-dimensional image divided into a sequence of scan lines where each scan line includes a sequence of pixels and where each pixel has an associated value representative of a shade to be rendered when displaying the two-dimensional image on a raster output device, the method comprising:

processing pixels in raster order including, for each pixel, comparing the value of the pixel with values of a plurality of previously processed pixels, and if a match is detected then encoding the pixel as a reference to a matching pixel and a length where the length is determined based on a number of consecutive pixels that satisfy a matching criterion where the matching criterion is defined by a relationship between the pixel and the matching pixel; and

if the value of the pixel does not match the value of any of the plurality of previously processed pixels then encoding the pixel value.

34. (New) A method of generating a compressed representation of a two-dimensional image where the image is described as a sequence of pixels in raster order, the method comprising:

receiving the two-dimensional image as a sequence of pixels in raster order; for each pixel, determining whether the pixel is part of a first string of pixels that is identical to a second string of pixels found previously in the image at one of a plurality of preselected fixed distances from the first string of pixels;

if so, encoding the first string of pixels as a string token that is a reference to the second string of pixels;

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otherwise, encoding the pixel as a non-string token.

35. (New) The method of claim 34 where one of the preselected fixed distances is one pixel, thereby allowing the first string of pixels to be encoded as a reference to the second string of pixels that occurred one pixel earlier in the two-dimensional image.

36. (New) The method of claim 34 where one of the preselected fixed distances is a length of one scan line of the two-dimensional image, thereby allowing the first string of pixels to be encoded as a reference to the second string of pixels that occurred directly above the first string of pixels on an immediately previous scan line.

- 37. (New) The method of claim 34 where the preselected fixed distances are two in number.
- 38. (New) The method of claim 34 where one of the preselected fixed distances is one plus a length of one scan line of the image, thereby allowing the first string of pixels to be encoded as a reference to the second string of pixels that occurred on an immediately previous scan line, one pixel to the left of the first string of pixels.
- 39. (New) The method of claim 34 where the preselected fixed distances are fewer in number than the maximum fixed distance.
- 40. (New) The method of claim 34 where a length of the first string of pixels is unbounded.
- 41. (New) The method of claim 34 where the string token is encoded by encoding the preselected fixed distance from the first string of pixels to the matching second string of pixels and a length of the first string of pixels.

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42. (New) The method of claim 34 where the string token or non-string token is encoded based on one or more previously encoded tokens preceding the string token or non-string token.

- 43. (New) The method of claim 34 further including encoding a single pixel as a ranking based on a distance of its value from a value of a previous pixel.
- 44. (New) The method of claim 34, wherein the step of encoding the first string of pixels as a reference to the second string of pixels includes dividing tokens into groups and encoding a token by encoding its group and encoding the particular token within a given group with a code.
- 45. (New) The method of claim 44, wherein the token within a group code can be variable length.
- 46. (New) A method of generating a compressed representation of a two-dimensional image as a sequence of encoded tokens, each token representing either a first string of pixels that is identical to a second string of pixels that occurs previously in the image or a single encoded pixel value, given an uncompressed representation of the image as a sequence of pixels in raster order, comprising:

receiving the sequence of pixels;

for each pixel, determining whether the pixel is part of a first string of pixels that is identical to a second string of pixels found previously in the image at one of a plurality of preselected fixed distances from the first string of pixels;

if so, encoding the pixel in the first string of pixels; otherwise, encoding the pixel.